

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
San Juan River Response - Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IX**

Subject: POLREP #20
San Juan River Response

Shiprock, NM
Latitude: 36.8704828 Longitude: -108.7892506

To: Calanog Steve, EPA

From: Tom Dunkelman, Incident Commander

Date: 9/2/2015

Reporting Period:

1. Introduction

1.1 Background

Site Number:	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority:	Response Type:
Response Lead:	Incident Category:
NPL Status:	Operable Unit:
Mobilization Date:	Start Date:
Demob Date:	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#:	Reimbursable Account #:

1.1.1 Incident Category

1.1.2 Site Description

The Gold King Mine near Silverton, Colorado is a historic gold mine at approximately 11,300' elevation. The mine has a continuous discharge of acidic mine drainage that is a significant contributor of manganese, zinc, copper, and cadmium into the Cement Creek drainage of the Animas River watershed. The Gold King Mine has not had maintenance of the mine workings since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed.

EPA Region 9 is focused on a stretch of the San Juan River extending from Farmington, NM to Mexican Hat, UT.

1.1.2.1 Location

San Juan County, NM and Navajo Reservation. The Animas River flows into the San Juan River at Farmington, NM. After the Animas River meets the San Juan River, the San Juan River continues to flow west through parts of New Mexico, Colorado, and Utah.

1.1.2.2 Description of Threat

Mine waste water was released into Cement Creek and the Animas River. The volume of the release based on US Geological Survey (USGS) Cement Creek gauging station is estimated at three million gallons. The initial environmental concern was the pulse of contaminated water containing sediment and metals discharged in Cement Creek which flows into the Animas River through Durango, Colorado, and into New Mexico where it joins the San Juan River before flowing into Utah. The river is also used for recreational purposes, including fishing and rafting, and is an important cultural resource for the Navajo Nation.

The leading edge of the release reached the New Mexico border on August 8, 2015 where it eventually discharged into the San Juan River.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Aerial and ground reconnaissance indicates that the plume associated with the Gold King Mine release has dissipated downstream. There is no leading edge of contamination visible in downstream sections of the San Juan River or Lake Powell.

EPA Region 9 is collecting and assessing water quality from the San Juan River from La Plata Highway in New Mexico to Mexican Hat in Utah. Water sampling is occurring, and pH levels and dissolved concentrations of metals are being monitored.

1.2 Incident Objectives

1. Safety

- Provide safe working environment for all response personnel
- Identify safety issues and monitor adherence to Health and Safety Plan
- Maximize protection of public health and welfare

2. Sampling

- Conduct water and sediment sampling from 5 designated locations along the San Juan River
- Conduct water and sediment sampling in Lake Powell
- Synchronize sampling data and information with Area Command

3. Water and Agricultural Needs

- Procure water trucks and establish watering points
- Establish needs and delivery of water and feed for livestock

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Alfalfa shipments are scheduled for Shiprock and Upper Fruitland for today (1 truck - 384 bales, for each Chapter). There are no other pending alfalfa shipments.

EPA has made arrangements for the pick up of the 13 black tanks. EPA is awaiting the go ahead from the EPA R9 EOC prior to removing these tanks.

Liaison Officer Reeves attended a briefing with EPA R6 and R9, BIA and Senator Udall (NM)

River sampling at 5 locations is scheduled for tomorrow September 3.

Farmington ICP is now on a 2-week operational period. The next Incident Action Plan, if needed, will be delivered on Sunday evening 13th of September.

EPA is continuing to assess agreements with BIA and NTUA regarding the delivery of livestock and drinking water.

As of August 31, river sampling has been changed to a twice-weekly schedule with sediment and water samples being collected at 5 sampling locations on Mondays and Thursdays. The Lake Powell sampling survey has concluded as of August 31.

2.1.2 Response Actions to Date

Sampling Branch

EPA Region 9 initiated water and sediment sampling efforts on August 9, 2015, to assess the impacts of the release at the Gold King Mine on the San Juan River. Starting on August 9, samples were gathered daily from the shoreline of the eleven designated locations along the San Juan River. Starting on August 31, the number of sample locations were reduced to the following five locations (sampled twice weekly).

New Mexico

San Juan River at LaPlata Highway (SJLP)
San Juan River at Shiprock (SJSR)
San Juan River at Four Corners (SJ4C)

Utah

San Juan at Montezuma Creek (SJMC)
San Juan River at Mexican Hat (SJMh)

Sample totals are summarized below:

	U.S. EPA Region	Qty. (8/30/2015)	Qty. (Cumulative)
Private Drinking Water Well Samples	9	0	0
Surface Water Samples	9	0	181

Sediment Samples	9	0	163
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August 8 - 4 water samples (SJLP, SJFP, SJHB & SJSR)
 August 9 - 13 water samples (all sites)
 August 10 - 12 water samples, 11 sediment samples (all sites)
 August 11 - 13 water samples, 13 sediment samples (all sites)
 August 12 - 13 water samples, 13 sediment samples (all sites)
 August 13 - 12 water samples, 12 sediment samples (all sites)
 August 14 - 12 water samples, 12 sediment samples (all sites)
 August 15 - 12 water samples, 12 sediment samples (all sites)
 August 16 - 12 water samples, 12 sediment samples (all sites)
 August 17 - 12 water samples, 12 sediment samples (all sites)
 August 18 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)
 August 19 - 10 water samples, 10 sediment samples (did not sample at SJSR or SJDS)
 August 20 - no samples collected
 August 21 - no samples collected
 August 22 - no samples collected
 August 23 - no samples collected
 August 24 - 12 water samples, 12 sediment samples
 August 25 - 12 water samples, 12 sediment samples
 August 26 - 11 water samples, 11 sediment samples (did not sample at SJDS)
 August 27 - 11 water samples, 11 sediment samples (did not sample at SJDS)
 August 28 - 0 water samples, 0 sediment samples
 August 29 - 0 water samples, 0 sediment samples
 August 30 - 0 water samples, 0 sediment samples
 August 31 - 5 water samples, 5 sediment samples
 September 1 - no samples collected
September 2 - no samples collected

There have been no requests for well samples and no requests for samples from diversion channels.

Community Relations Branch

All community involvement duties are suspended under the current order.

Water and Feed Delivery Branch

A summary of water and livestock feed deliveries are as follow:

Activity	U.S. EPA Region	8/30/2015			Cumulative		
		Deliveries (each)	Qty. (gal)	Qty. (hay bales)	Deliveries (each)	Qty. (gal)	Qty. (hay bales)
Potable Water Deliveries	9	0	0	0	0	0	0
Livestock / Agricultural Water Deliveries	9	0	0	0	13	218,400	0
Agricultural Food Deliveries	9	0	0	0	14	0	5476

Feed delivered for livestock is as follows:

8/14 - 384 bales of alfalfa delivered to Gaadiiahi chapter
 8/21 - 384 bales delivered to Gaadiiahi, 384 bales delivered to Nenahnezad, 384 bales delivered to Hogback, 384 bales delivered to Upper Fruitland
 8/22 - 384 bales delivered to Beclibito
 8/24 - 384 bales delivered to Shiprock, 384 bales delivered to Red Mesa, 384 bales delivered to Aneth
 8/27 - 384 bales delivered to Oljeto, 384 bales delivered to Mexican Water
 8/28 - no deliveries
 8/29 - delivery of 384 bales to Teec Nos Pos, attempted to deliver to Navajo Mountain Chapter, but no one was there to accept delivery. Will attempt to reach out to them on Monday.
 8/30 - no deliveries
 8/31 - no deliveries
 9/1 - no deliveries
9/2 - delivery of 384 bales to Shiprock Chapter and delivery of 384 bales to Upper Fruitland Chapter

Drinking Water System Impacts

No known water systems in Region 9 have been impacted.

Glen Canyon, Arizona ICP

As of August 31, all current sampling has been completed and all personnel have demobed.

Sampling efforts throughout this expedition are detailed below.

Matrix	Qty.	Qty.
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	U.S. EPA Region	(8/30/2015)	(Cumulative)
Private Drinking Water Well Samples	9	0	0
Water Samples (at 4 different depths)	9	0	80
Sediment Samples	9	0	20

2.2 Planning Section

2.2.1 Anticipated Activities

Because Navajo law enforcement representatives are unable to support sampling on a daily basis, sampling have been scaled back to Mondays and Thursdays.

There are no pending alfalfa deliveries.

EPA is prepared to initiate removal of 13 black tanks, pending notification from EPA R9 EOC.

Lake Powell sampling survey has concluded.

2.2.1.2 Next Steps

2.2.2 Issues

On 17AUG15, at approximately 1130, seven members of the Farmington ICP response team were approached in the farmland area of Shiprock by a member of the Navajo Nation. The individual is in opposition to the response operations of Farmington ICP in regards to water and feed deliveries in the Shiprock Chapter. During the confrontation, the response personnel were threatened by being told their vehicles "would be stoned". They were also intimidated by a second vehicle that showed up in support of the individual. The response personnel listened to what the individual had to say and eventually left.

At approximately 1215, another incident occurred with the same individual at the bridge in Shiprock. There, the individual argued with 2 EPA employees and threatened to break their equipment. The individual left after a few minutes. In both cases the response personnel returned to the Farmington ICP and were unharmed.

An investigation is being conducted by the Navajo Department of Criminal Investigation.

On 19AUG15, a video was posted on social media that showed Navajo Nation President and Attorney General alleging contamination in one of the water tanks delivered by the EPA.

2.3 Logistics Section

NAPI requires a 3-day advance notice prior to alfalfa deliveries in order to make appropriate accommodations.

2.4 Finance Section

2.4.1 Narrative

Region	U.S. EPA Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	Cumulative U.S. EPA Contractors Cost	Total Cumulative Costs	Estimated Daily Burn Rate
9				\$1,041,000 (estimated)	\$1,114,000(estimated)	\$24,000 (estimated)

2.5 Other Command Staff

2.5.1 Safety Officer

With weather being forecasted into the 90s, hydration is of paramount importance. Additionally, much of the terrain surrounding the river is uneven and rocky. Responders should transit these areas with care.

While transiting throughout the region, responders should be mindful of the potential for contact with wildlife. Scorpions, snakes, and other similar animals raise a potential for injury.

Law enforcement presence with sampling team in remote location is paramount given the lack of connectivity in the far reaching sampling sites.

2.5.2 Liaison Officer

LNO Officer Linda Reeves is attending briefing on September 2 with EPA R6 and R9, BIA and Senator Udall.

2.5.3. Weather Forecast

Weather forecast for Wednesday, September 2

FARMINGTON AREA

Today

A mix of sun and clouds with a high of 85, low of 58 and 20% chance of precipitation. Wind coming out of the west at 10 mph.

Tomorrow

Mostly cloudy with a high of 78, low of 55. 20% chance of precipitation. Wind SW to 15 mph.

3. Participating Entities

3.1 Area Command

EPA Region 9 is coordinating with EPA Regions 6 and 8, Navajo Nation, and the states of Colorado, New Mexico, Utah, and Arizona. The EPA Region 9 is working with the Navajo Nation to evaluate possible impacts to the Tribe. Potentially impacted water systems have been notified, and precautions are in place to ensure drinking water is protected. The EPA and New Mexico Environmental Department are providing assistance to community water systems and closely monitoring the situation. EPA Region 9 has contacted the Bureau of Indian Affairs regarding potential impacts to the Navajo Nation and is currently working with Navajo liaisons.

3.2 Incident Command and Cooperating Agencies

The Farmington Incident Command includes EPA Region 9 and United States Coast Guard. **Tom Dunkelman has relieved Lieutenant Commander Bill McKinstry as Incident Commander as of 0700 31 August.**

4. Personnel On Site

Region	Agency / Entity	Number of Personnel (8/30/2015)
	U.S. EPA Personnel	0
	U.S. EPA Contractors	1
	USCG	1
	Other Federal, State, Local and Tribal Entities - 2	

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report

www.epa.gov/goldkingmine

7. Situational Reference Materials

No information available at this time.